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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/239,907	01/29/1999	ANDREW MACCORMACK	858063.435	6683

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SEED INTELLECTUAL PROPERTY LAW GROUP PLLC
701 FIFTH AVE
SUITE 6300
SEATTLE, WA 98104-7092

EXAMINER

BELIVEAU, SCOTT E

ART UNIT PAPER NUMBER

2614

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/239,907

Applicant(s)

MACCORMACK ET AL.

Examiner

Scott Beliveau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 7, 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Oath/Declaration

2. The oath or declaration is defective because it does not identify the citizenship of each inventor. Specifically, the citizenship of Howard Gurney is missing. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

Drawings

3. Applicant is required to submit corrected drawings in reply to all defects noted on the Notice of Draftperson's Patent Drawing Review (PTO-948). The objection to the drawings will not be held in abeyance.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "456" and "458" (Figure 5). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

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5. The disclosure is objected to because of numerous spelling errors originating from differences between UK and US English. For example, some of the more commonly encountered misspellings include: “programme” versus “program”, “packetised” versus “packetized”, “synchronisation” versus “synchronization”, and “utilising” versus “utilizing”. Appropriate correction is required.
6. The disclosure is objected to because the status of all co-pending applications should be updated as appropriate (Page 12, Line 16; Page 15, Line 14).

Claim Objections

7. Claims 7 and 17 are objected to because “packetised” is misspelled and corrected to read, “packetized” in order to conform to the US spelling. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
9. Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase “when dependent on claim” is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. In the present instance, claims 7-8 recite the broad recitation “the receiver of claim 6”, and the claim also conditionally recites “when dependent on claim . . .” which is the narrower statement of the range/limitation. For the purposes of continued art evaluation,

the examiner shall presume that the limitations recited in the “dependent claims” have been bodily incorporated into the respective claims so as to remove the conditional nature of the claim.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Dokic et al. (US Pat No. 5,959,659).

In consideration of claims 1 and 10, the examiner refers the applicant to the Dokic et al. reference, which discloses a decoder or “set-top-box” (instant application: Page 3, Lines 1-6) that may function as a “receiver for the demultiplexing digital data streams . . . including data packets having a packet identifier” such as those defined by the MPEG-2 specification (Col 1, Lines 19-23; Col 2, Lines 45-65). As is known in the art, and disclosed in the instant application, there are a number of known techniques for a receiver performing the

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demultiplexing of time multiplexed MPEG-2 transport packets (Page 4, Lines 14-15). The aforementioned Dokic et al. reference reads on the claimed language in view of Figures 3 and 5. Figure 3 illustrates a block diagram of the “receiver” architecture comprising: “input circuitry for receiving the digital data stream” [112], a demultiplexing section [104], and a control section [108] (Col 5, Lines 60-67 – Col 6, Lines 1-9). Referring now to Figure 5, the demultiplexing section is further shown to comprise “a memory for storing packet identifiers” [205], “a first control circuit” or host microprocessor [106], and a “second” and “third control circuit” embodied via the controller [204] of the digital signal processor [102]. The reference further describes the interaction between these components. The “first control circuit” provides “packet identifiers of data packets required by the receiver” to the “memory” [205] (Col 8, Lines 28-31, 58-60; Col 9, Lines 10-23). The “second control circuit” extracts the payloads of the transport packets responsive to a “match” as indicated by the “third control circuit” (Col 8, Lines 20-52; Col 9, Lines 18-43). With respect to the claimed distinction of the “control circuits”, the examiner notes that Office personnel are to give claims their broadest reasonable interpretation. Accordingly, the examiner has interpreted the aforementioned divisions as being capable of being either a physical or functional division. The reference discloses that Figure 5 contains high level “block diagrams” (Col 7, Lines 60-66) and as such it would not have been unreasonable for one of ordinary skill in the art to conclude that the controller [204] embodiment may be comprised of more than one “circuit”.

Claims 11 and 20 are rejected in view of the rejection of claim 1. The “method of demultiplexing a digital data stream” in conjunction with a “set-top-box” is met wherein the

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reference teaches the following steps: “inputting the digital data stream” (Figure 3; Col 5, Lines 60-67 – Col 6, Lines 1-9), “storing . . . all packet identifiers. . . required by the receiver” (Col 8, Lines 28-31, 58-60; Col 9, Lines 10-23), and “determining”, “extracting”, and “demultiplexing” under the control of a “second” and “third control circuit” packets responsive to a “match” (Col 8, Lines 20-52; Col 9, Lines 18-43).

Claims 2 and 12 are rejected wherein it is taught that the “third control circuit outputs the address” of the “extracted packet identifier responsive to a match” and the “second control circuit” accesses that address to “retrieve control information associated with packet identifier”. The digital signal processor [102] that houses both the “second” and “third control circuits” [204] also comprises two “memory addresses” or transport packet buffers [200/202] (Col 7, Lines 60-67 – Col 8, Lines 19). “Responsive to a match” the “third control circuit” accesses the appropriate “address” or buffer [200/202] to “retrieve control information” to identify the contents of the transport packet in order to route it to the appropriate decoder or processor (Col 8, Lines 31-37).

Claims 3-4 and 13-14 are rejected in view of Figure 5 wherein “the second control circuit” [204] controls the transfer of and/or processes “the input data packet to a destination” such as data buffers [206/208/210] or host microprocessor as “identified by the control information” (Col 8, Lines 31-37, 53-67). It is taught that should the “input data packets” contain private data, the entire packet will either be “transferred”. Alternatively, the packet may be “processed” such that only the payload data is “transferred” (Col 9, Lines 39-53).

In reference to claims 5 and 15, Dokic et al. teaches that the packet is “discarded” if a “match” is not found (Col 8, Lines 51-52)

Claims 6-7 and 16-17 are rejected wherein the reference teaches a method/apparatus for the interpretation and demultiplexing of received MPEG-2 transport packets (Col 7, Lines 49-59). The MPEG-2 standard (incorporated by reference) defines a transport stream as being logically constructed from a “packetized elementary stream” or PES packets. The instant application further supports this definition (Page 2, Lines 5-8).

In consideration of claims 8 and 18, the component elements of the “input” data stream are well known in the art, as evidenced by the MPEG-2 specification,. Figures 1-2 of the Dokic reference illustrates that the “input data packet comprises program specific information” or PSI tables (Col 2, Lines 3-19). As aforementioned, the receiver uses these PSI tables to derive PIDs that corresponds to desired programming which are subsequently used by the “second control circuit” [204] to “retain only those data packets having sections required by the receiver” (Col 2, Lines 29-44; Col 8, Lines 20-31, 48-52).

Claim 9 is rejected wherein the “first control circuit” is a “receiver processor” [106] which controls the overall operation of the “receiver” (Col 13, Lines 13-32). The “second” and “third control circuits” [204] are embedded within a digital signal processor [106] that is coupled to a PAL [118]. The digital signal processor [106] functions as both a “search engine” to identify buffered packets and a “transport processor” to move the packets into the appropriate buffer as aforementioned (Col 8, Lines 20-52).

Claim 19 is rejected wherein the “third control circuit” [204] “systematically” searches the transport packet buffers [200/202] for a “match”. Figures 6A-C further illustrate a “systematic” method for “searching the memory” in conjunction with the demultiplexing process.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made. Applicant must also show how the amendments avoid such references and objections. See 37 CFR § 1.111(c).

- The Rostoker et al. (US Pat No. 6,026,088) discloses a method for retrieving packet address information and routing that packet to the appropriate port in a digital video system that accommodates a number of network protocols.
- The Sherer (US Pat No. 5,935,245) discloses a method for providing network security that incorporates the use of packet sniffers.
- The Yosizawa et al. (US Pat No. 6,002,694) reference discloses a billing system wherein individual subscriber receivers have unique identifiers in order to route information to them through the system head-end.
- The Anderson et al. (US Pat No. 6,229,801) reference discloses a method for storing and processing of table data in an MPEG-2 demultiplexing apparatus.
- The Anderson et al. (US Pat No. 6,088,357) reference discloses a technique wherein an assist processor operates in conjunction with a data path of individual hardware functional units to decode an MPEG-2 complaint data stream.
- The “Coding of Moving Pictures and Associated Audio: Systems (ISO/IEC JTC1/SC 29/WG11 N0801)” discloses the international standards for the

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generic coding of moving pictures and audio associated with those pictures.

This document has been incorporated by reference into the Dokic (US Pat No. 5,959,659) reference.

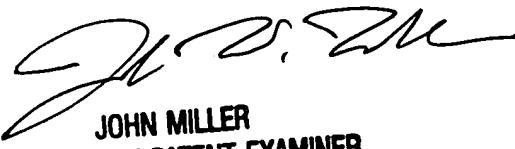
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 703-305-4907.

The examiner can normally be reached on Monday-Friday from 8:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 703-305-4795. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

SEB
August 10, 2002


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600